



We look forward to seeing you.

Univ.Prof.Dr. Karsten Held
Dipl.-Ing. Georg Rohringer
Institute of Solid State Physics, TU Wien
Wiedner Hauptstr. 8-10/138
1040 Wien, Austria
held@ifp.tuwien.ac.at
rohringer@ifp.tuwien.ac.at
www.ifp.tuwien.ac.at/cms

For further assistance please contact:

Angelika Bosak
T: +43-1-58801-13109
bosak@ifp.tuwien.ac.at



TECHNISCHE
UNIVERSITÄT
WIEN
Vienna University of Technology



European Research Council
Established by the European Commission

INVITATION

ERC Workshop
Ab initio Dynamical Vertex Approximation

1-4 September 2013

Almgasthof Baumschlagerberg
A-4574 Vorderstoder 19
www.baumschlagerberg.net

SUNDAY

- 7:50 Meeting point: corner of
Wiedner Hauptstr. and Resselgasse
1040 Vienna
- 8:00 Departure
- 13:00 Hiking tour
Lunch and beverages not included
- 18:00 Dinner**
- 19:00 Get-Together

MONDAY

- 8:00 Breakfast**
- 9:00 Karsten Held
Introduction to AbinitioDFA
- 9:15 Peter Blaha
Introduction to WIEN2k
- 10:00 Jan Kuneš
*Wannier functions: theory
and selected applications*
- 10:45 Coffee break**
- 11:00 Elias Assmann
Charge self consistency
- 11:15 Discussion on Wannier orbitals
- 11:45 Jan Tomczak
GW+DMFT
- 12:30 Lunch**
- 14:00 Emanuel Gull
*Introduction to continuous-time
quantum Monte Carlo*
- 14:45 Giorgio Sangiovanni
*"W2dynamics": operation and
applications*
- 15:30 Coffee break**
- 15:45 Nicolaus Parragh
Future directions of w2dynamics
- 16:00 Markus Wallerberger
*"W2dynamics": vertices and improved
estimators for general interactions*
- 16:15 Discussion on CTQMC
- 17:00 Patrik Thunström
*Multi-orbital two-particle Green's
functions*
- 17:30 Lukas Semmelrock
Mott-transition in triangular lattices
- 17:45 Stefan Donsa
*Double quantum dot
as a thermoelectric generator*
- 18:00 Dinner**
- 19:00 Get-Together

TUESDAY

- 8:00 Breakfast**
- 9:00 Alessandro Toschi
*Introduction to the two-particle vertex
functions and to the dynamical vertex
approximation*
- 9:45 Angelo Valli
Correlations at the nano-scale
- 10:30 Thomas Schäfer
*Divergent precursors of the Mott
transition*
- 10:45 Coffee break**
- 11:00 Georg Rohringer
One particle irreducible approach
- 11:30 Discussion on dynamical vertex
approximation
- 12:15 Prabhuddha Sanyal
*Study of Anderson localization effects
in the Falicov-Kimball model using
the dynamical vertex approximation*
- 12:30 Lunch**
- 13:30 Hiking tour
- 18:00 Dinner**
- 19:00 Get-Together

WEDNESDAY

- 8:00 Breakfast**
- 9:00 Sergio Ciuchi
*The crossover from Fermi liquid to
preformed local pairs in the normal
state of the attractive Hubbard and
Holstein models*
- 9:45 Sabine Andergassen
New developments in functional RG
- 10:30 Ciro Taranto
*From infinite to two dimensions with
the functional RG*
- 10:45 Coffee break and discussion**
- 11:15 Philipp Hansmann
*Effective crystal field and Fermi surface
topology: a comparison of d- and dp-
orbital models*
- 12:00 Zhicheng Zhong
Oxide heterostructures
- 12:30 Final discussion
- 13:00 Lunch**
- 14:30 Departure
- 18:30 Arrival in Vienna